

A Note on Pulau Jarak considered as an oceanic island

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Having read the report on Jarak Island in draft form I was immediately struck by the great interest of the observation that the fauna and flora of the island are of the oceanic type and indicate a rather recent colonisation by the animals and plants inhabiting it. At the same time the matter seemed to me most mysterious as nothing in our knowledge of the late Pleistocene and recent geological history of the region suggests that an island of this situation, height and size can have been totally submerged during this period. On the other hand there is every reason to suppose that at some period or periods in the Pleistocene it formed part of the mainland of Sundaland.

The following possible explanation of the anomaly has occurred to me.

In northern Perak, e.g. at Kuala Plus and Kota Tampan, there are thick deposits of volcanic "ash" (wind-borne pumice dust). These are generally attributed to the cataclysmic eruption which formed the Toba Meer crater in Sumatra, and which is believed to have taken place in Pleistocene or early post-Pleistocene times. The ash must have been carried by a south-westerly wind and the preservation and limited distribution of the Perak deposits is probably due to deposition in water, as such an unconsolidated deposit falling on a land surface with a high rainfall would be quickly eroded away.

Now a glance at the map shows that Pulau Jarak lies very close to the straight line between the Toba Meer and the Perak ash deposits, and is considerably nearer than they are to the volcano. It appears to me to be possible that at the time of the eruption the island, in something very like its present form, but with a continental flora and fauna, was subjected to such a heavy fall of ash that all life was destroyed, and that its present flora and fauna are the result of re-colonisation after removal of the ash by erosion.

This re-colonisation would presumably follow quite quickly after the eruption and so could be regarded, if this explanation is accepted, as closely indicative of its date. The analysis of the present fauna and flora, particularly the "patch distribution" of the latter, seems to suggest a rather recent, probably post-Pleistocene, date for the event. The matter is of great interest from the point of view of geology and prehistory as well of biology, and a further investigation of the islands in the Malacca Strait would seem to be well worth pursuing.